

Gateway to Ecuador---Guayaquil's Fight With Fever and Plague

Can It Be Cleaned for the Panama Canal?—Big Contracts Under Way—Yellow Fever Now Raging—The Bubonic Plague and the Terrible Rat. How the City Looks—Its Big Business in Ivory, Nuts and Cacao—New Railroads Which Will Connect Quito With the Amazon.

BY FRANK G. CARPENTER.

GUAYAQUIL is the New York of Ecuador. It is the chief port of the country. It has an export and import trade of more than \$20,000,000 a year, and this will be quadrupled if the place can be made healthy. It is important to us that it should be so, for it is the first port south of Panama. It is not as far from Panama as is New York from Chicago, and when the canal is completed it will be nearer Boston than from Boston to Liverpool. The town lies about sixty miles from the ocean. It is on the wide and deep Guayas River, up which boats can go during the rainy season for 200 or 300 miles. The town lies almost on the equator. It is under the shadow of the snowy peaks of Chimborazo and Cotopaxi, but it is surrounded by jungle. Just now it is afflicted with bubonic plague and yellow fever, and these conditions will have to be wiped out before Ecuador can be allowed the free use of the Panama Canal.

The Ecuadorians have come to realize the seriousness of the situation. They know that their ports must be made clean or they will block the country's development. The government has been discussing the question for several years, and foreign experts have been called in to make plans for the cleaning of Guayaquil. Dr. Gorgas has been here and given suggestions, and a scheme after scheme has been proposed to remedy the evil. Just now a contract with J. G. White & Co. of New York and London is under way. That firm has had its engineers on the ground, and it is ready to enter into a contract for a series of public improvements that will cost \$10,000,000. This sum will be enough to do the things immediately necessary. It will pave the streets, put in sewers, increase the water supply and inaugurate a systematic upbuilding and renovation that will make the port safe for the traveler and trader.

At present Guayaquil is so dangerous that no one stops here who can help it. The new cases of bubonic plague now number ten or more every day, and there have been seventy cases of yellow fever reported within the past two weeks. The officials have begun to vaccinate for the plague, and the moment the traveler lands he is grabbed by the doctor and the plague serum is injected into his arm. He then gets a certificate proving that he has been vaccinated, and he is allowed to show this before he is allowed to go into the interior. There are two kinds of vaccination given for the plague. The one used here is the Hoffman process. It consists in injecting the dead cultures of the plague bacilli. The needle hurts as it goes into your arm, and you have to feel a little pain of juice containing some million of bacilli under the skin. The arm is sore a short while, but the vaccine does not make you sick. This is supposed to render one immune from the plague for several months. The other kind of vaccination is by the Yerkes anti-toxin. It is given only to those who have caught the plague, and is supposed to neutralize the poison in the system.

During my stay at Panama I had a long chat with Dr. R. C. Perry, the chief health officer, who is in charge of the sanitary conditions at the Isthmus with regard to the ports along the west coast. He has visited every port from Callao to Panama, and has spent much time in studying the situation at Guayaquil. He tells me that the only way in which this city can be made healthy is by the use of the Hoffman process of today is swarming with rats, the rats from which carry the plague. The great of its houses stand close to the ground, and many of them are made of wood. The rats can burrow under the wooden posts, upon which are nailed laths of split bamboo. This framework is covered with stucco on the outside, and plaster or boards on the inside. It makes a beautiful wall to look at, but the rats can crawl inside the wall and walk up the lathing.

Many of the poorer houses are built right on the ground. Dr. Perry says that they should be jacked up and placed on posts so high that the rats could not jump to the first floor. He says that the floors of the better class houses should be of cement, and that all houses should have a beautiful wall to look at, but the rats will burrow under any ordinary floor.

As it is now, according to Dr. Perry, Guayaquil has rats everywhere, and all of its rats have fleas. The bubonic plague is transmitted by these fleas biting such rats as have the plague, and then going from them to men, women or children and biting them. A flea that has bitten a sick rat will carry the plague in its system for ten or twelve days, and if it bites you during that time the plague bacilli will go into your blood. They will multiply rapidly, and within five or six days the chances are that you will die in horrible pain.

I asked Dr. Perry what kind of rats carry the plague. He replied: "Almost any kind, but there are three which are especially dangerous. One is the big gray Norway rat, another is the gray



Harvesting Ivory nuts for American buttons.



Guayaquil is under the shadow of Mt. Chimborazo.

tree rat, which has a white belly, and the third is a little black rat. The black rat is most common in Guayaquil, and the plague existing there comes from it. The rats which catch the plague often die; they will give the plague to other rats, and it sometimes becomes epidemic among them, although they run from it. If a rat dies of the plague in a block or street, the uninfected rats of that block seem to know it, and they will desert the block and go somewhere else."

I am afraid of the bubonic plague, and I shall not stop in Ecuador on account of it. I have seen a great deal of the disease in China and India. About twenty years ago I visited Hongkong and Canton, when the people there were dying at the rate of hundreds a day, and where there were so many deaths that there were coffin associations by which coffins were given out in the way of charity. During that plague 60,000 coffins were furnished by such associations.

The plague in China came from the rats, and it raged in the densely built up areas of the Chinese at Hongkong, where it has since broken out again and again. The English government there is doing all that is possible to control it, but the city will have to be rebuilt to make it absolutely safe, as Dr. Perry says, the same condition obtains here.

It would be terrible if this plague should be brought through the canal to New Orleans, New York or Boston. It is wonderfully catching, although it can be transmitted only by fleas and by rats. Nevertheless, it raged throughout Europe again and again in the years between the sixth and eighteenth centuries, and it is said to have caused more deaths than any other epidemic that has populated human graveyards. It was this pest that Daniel De Foë described in his story of the great black plague in London of 1665 and 1666, and it is the same as that which ravaged Europe during the fourteenth century. Those two plagues are said to have come from China. The plague in Guayaquil was first known until about 1905, when it was brought in, some claim, from Paita, Peru, and others by certain Asiatic ships that called here. The people were warned of their danger by Dr. J. B. Lloyd, the American health officer, who was then stationed in Ecuador, and for a time he was allowed to try to control it. Later on he was repudiated by the Ecuadorian government, and Dr. W. M. Wightman was sent in his place. Dr. Wightman took the yellow fever and died here. That was in 1909.

At that time Colonel Gorgas was much alarmed at the danger of the pest getting a foothold on the Isthmus, and he ordered to keep it out of Colon he had more than a half million dollars' worth of small houses, that were said to be infested with rats, burned to the ground.

The danger of yellow fever getting into Panama through Guayaquil is a

serious one, and this disease, also, will have to be wiped out before Americans will be safe in allowing our ships to come here on for travelers to go through the canal after leaving Ecuador. Already several Americans have died in Guayaquil, and there are new cases now every day. It is not safe for any American to settle in Guayaquil to do business in its present condition. You will remember that Thomas Nast, the famous cartoonist, was appointed consul here, and how he came to his grave. He died of yellow fever. I have spoken of the death of Dr. Wightman. He was supposed to be a yellow fever immune. A third prominent case is that of Major John A. Harman, the engineer who built the railway over the Andes from Guayaquil to Quito, and a fourth is that of Commander Beriolette, of our gunboat Yorktown, who died only a short time ago.

The yellow fever comes from a kind of mosquito that can carry it only after biting a yellow fever patient. After the mosquito bites a human being afflicted with the fever it gets the yellow fever itself; and it can then inject the yellow fever bacilli into your system if it bites you. I had a good knowledge of this disease during the epidemic at Panama in 1905. That epidemic came from Guayaquil, and it killed some of the officials who were working on the canal. I was at Panama several weeks during its height, and I frequently went down to dinner with a man, only to hear a few days later that he had been bitten and, perhaps a week later, that he was dead. One of the most pathetic cases was that of a young architect named Johnson, who had charge of all the building then going on in preparing for our army of workmen. Mr. Johnson was a young man of about twenty-five, of great ability and of a very lovable nature. He was engaged to a girl in Chicago and wrote to her daily. During my stay we frequently went out riding on horseback together, along in the evening, through the region known as the savannas, and he told me how he expected to go home in May and bring back a young wife to the Isthmus. That was in March. I left Panama in April, and before the end of the month I received the news of young Johnson's death.

Another danger at Guayaquil is from malarial fever, similar to that which caused so many deaths on the Isthmus at the time of the building of the Panama Railroad. This the Ecuadorians have learned, and it is known to the Panamanians as the Chagras fever. I had a severe attack of it when I last visited Guayaquil. Perniclosa comes from the bite of the anophele mosquito, which is very different from the kind of mosquito that carries the yellow fever. The anophele cannot give the yellow fever, and the stegomyia does not carry malaria. The former will breed in almost any wet place, but the latter is fond of rain barrels, and it does not like dirty water. The anophele has its chief feeding time at night, and for the most part it lives out of doors. The stegomyia usually bites in the daytime, although it likes to keep out of the sun.

Neither of these mosquitoes is as big as the New Jersey variety, nor half as ferocious. Dr. Gorgas once told me that there were about 200 different kinds of mosquitoes in the world, and that they caused many other diseases than those I have mentioned. There is one that will carry the elephantiasis. This is a little devil with a yellowish body and six yellow bands around its abdomen. It carries a kind of bacilli that forms worms in your blood. They make your legs swell and sometimes cause death.

Dr. Perry says the only way that yellow fever can be permanently wiped out of Guayaquil is by cutting down the vegetation, cleaning up the garbage, covering the rain barrels, putting oil upon the ditches and enlarging the water supply. The city now has good water, but the volume is not sufficient, and the water is allowed to be drawn only a certain part of each day. For this reason many families have storage tanks, which they fill

while the water is running. The tanks are often uncovered, and are great mosquito breeders. Moreover, much of the water is kept in open barrels, and the garbage is left in uncovered cans or in open boxes until taken away. Later it is loaded upon a street car made for the purpose, and thus carried out to the crematory or incinerator. The covering of the garbage cans would take away a great deal of the rat food, and the elimination of the rain barrels and tanks will do much to wipe out the mosquitoes.

I first visited Guayaquil fifteen years ago. It was then a town of 40,000 inhabitants. It has now 80,000 to 100,000, and has greatly improved. The streets have been widened, and many of the new buildings are fine. They are of two stories, covered with stucco and painted all the colors of the rainbow. Many of them have balconies which reach out over the street, and not a few have galleries along the second story. The town has large stores filled with fine goods, and great warehouses containing bags of cacao coffee and sugar awaiting shipment. It has an electric street car line and electric lights, both of which have been introduced since I was there. It has a theatre and several moving picture shows, and altogether it is becoming quite modernized and up-to-date.

Guayaquil has several large banks that pay big dividends, and sugar mills, rice factories and coffee hullers. It has cables which connect it with all parts of the world, and a system of telephones, with long-distance connections to Quito, which is situated in the Andes, about 300 miles away. The

Beautifulies of Our Republican Court

(Continued From Fourth Page.)
Peter P. Goelt, By Their Marriage two great fortunes were united. This is the second time that the prize for beauty has been awarded to Miss Gladys Hinchley, daughter of Mr. and Mrs. Robert Hinchley, of Washington. The late Russian ambassador, Baron Rosen, once pronounced her the most beautiful woman in Washington. She has been one of the more popular young women in capital society since she made her debut.

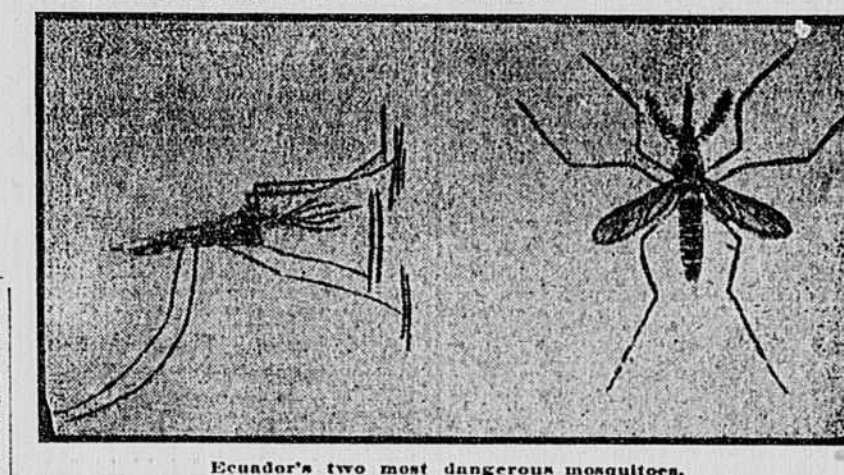
FEW FOLKS HAVE GRAY HAIR NOW

Well-known local druggist says everybody is using old-time recipe of Sage Tea and Sulphur.

Hair that loses its color and lustre, or when it fades, turns gray, dull and lifeless, is caused by a lack of sulphur in the hair. Our grandmother made up a mixture of Sage Tea and Sulphur to keep her locks dark and beautiful, and thousands of women and men who have that hair color, that beautiful dark shade of hair which is so attractive, use only this old-time recipe. Nowadays we get this famous mixture by asking at any drug store for a 50-cent bottle of "Wyeth's Sage and Sulphur Hair Remedy," which darkens the hair so naturally, so evenly, that nobody can possibly tell it has been applied. Besides, it takes out dandruff, stops scalp itching and falling hair. You just dampen a sponge or soft brush with it and draw this through your hair, taking one small strand at a time. By morning the gray hair disappears; but what delights the ladies in that, besides beautifully darkening the hair after a few applications, it also brings back the gloss and lustre and gives it an appearance of abundance.—Advertisement.



Upper picture: "Ecuador is nearer New York than Southampton is." Dotted line shows old route from Boston to Ecuador. It is over 10,000 miles. Straight line is by the canal, less than 4,000 miles. Lower picture: Scene on the Guayas River.



Ecuador's two most dangerous mosquitoes.

railroad to Quito belongs to Americans, and was built by them, but Ecuador will soon have other railroads, built by French, English and the natives. One road is planned to connect Guayaquil with oil fields at St. Helena, and another is projected that is to go from the port of Bahal de Caraquez to Quito.

The city has also a network of water transportation. The Guayas River system is navigated in the rainy season by boats like those on the Ohio and Mississippi, and they can then travel as far as 250 miles inland. They go to the villages and plantations, and bring out cacao, ivory nuts, sugar, coffee and rubber. Cacao and ivory nuts are the chief exports. The country furnishes about half of the chocolate beans consumed by the world, and the buttons from its ivory nuts uphold the pantaloons of the nations. I am told that nine-tenths of all the foreign commerce of Ecuador passes through Guayaquil.

It is also said that the business here is in the hands of a few wealthy traders, who would prefer to keep Guayaquil as it is, rather than to have it made habitable to foreigners, who may compete with them. I doubt this, al-

though I have heard the charge made many times. Politics also enter into the question, and likewise the rivalry between Quito and Guayaquil as to who shall have charge of the funds to be used in improving the city and country.

At present most of the exports of Ecuador come from the lowlands. They consist of tropical products, but there are great pasture fields in the Andes and on the slopes toward the Amazon are other vast tracts that are fitted for coffee, sugar cane and cacao. Just now a road is being built to connect the port of Ambato, which lies on the plateau, with the Curaray River. This new road will run for about 120 miles through the Ambato River valley, and it then be joined to one of the navigable tributaries of the Amazon system. It will open up a rich mining country, and a farming region so rich that it is said that it will support millions of people. The streams of the country are full of gold, and the gold of the Indians are still washing gold out of their sands. This region is known as the Oriente of Ecuador. It is inhabited almost altogether by savages, but white men can live in it, and

"Essentially American in the face of Miss Gladys Hinchley, her eyes are beautifully set apart and her nose is excellent. "Natural piquant, intellectual, inquiring and unconventional is the delightful type of Miss Gladys Hinchley. Her face reflects a mind that is straight and look in her eyes. She has a delightful, good-natured smile. She will make herself happy in any walk of life which she may select.

"The face of Mrs. Pearlall has a beautiful oval and her features are classic. Her eyes are wonderfully bright, her nose excellently shaped, her mouth determined, yet exquisite. And she puts her hair up, and I am told, 'There is a depth of wonderful expression in the face of Mrs. Pearlall. It is learned, thoughtful, beautiful and possesses a mysterious sadness. It is a face that reflects soul. "Which of these ladies is the most beautiful? I asked the painter in conclusion. "I could not possibly decide. The types are too diverse and I am too cosmopolitan in my tastes to judge between them. Each is beautiful in her own individual way. "I think that Mrs. Pearlall is longer, and Mrs. Hinchley is shorter. I have not seen her since—one of the most beautiful American women I have ever seen. She had one of the most exquisite mouths I have ever beheld—a delightfully sweet, kind smile, perfectly shaped. And her eyes were wonderful, with their strange green tint especially intensified by her favorite color scheme of dressing in green. "Her sister, Miss Ethel, was also a beauty, and so, I think, is Mrs. Sayre, the daughter of President Roosevelt. (Copyright, 1914, by John Elfreth Watkins.)

Every mother realizes that this is the children's ideal laxative and physic, because they love its pleasant taste and it never fails to effect a thorough "inside cleansing" without griping. When your child is cross, irritable, feverish, or breath is bad, stomach sour, look at the tongue, mother! If coated, give a teaspoonful of "California Syrup of Figs," and in a few hours all the foul, constipated waste, sour bile and undigested food passes out of the bowels and you have a well-

playful child again. When its little system is full of cold, throat sore, has stomach ache, diarrhoea, indigestion, colic—remember, a good liver and bowel cleansing should always be the first treatment given. Millions of mothers keep "California Syrup of Figs" handy; they know a teaspoonful to-day saves a sick child to-morrow. Directions for babies, children of all ages and grown-ups are plainly on each bottle. Ask your druggist for a 50-cent bottle of "California Syrup of Figs." Beware of counterfeits sold here. Get the genuine, made by "California Fig Syrup Company." Refuse any other fig syrup with contempt.—Advertisement.

It will soon be thrown open to immigrants. (Copyright, 1914, by Frank G. Carpenter.)

A. & M. COLLEGE

[Special to The Times-Dispatch.]
West Raleigh, N. C., February 7.—The winter course in agriculture ended to-day. There were thirty-four men in this class. This course covers four weeks after Christmas, and is offered for the farmers who cannot get away from their work at other times during the year. Before Christmas it was expected that there would be more than 100 men to take the course this year. Besides the regular classes, three very interesting lectures were delivered this week—one by Clarence Poe, on the changes which have taken place in agriculture in recent years and the steps the farmers will have to take to keep up with these changes; the second lecture was by Professor Camp, in charge of rural economics, on the question of marketing; the third lecture was delivered on Wednesday night by J. M. Johnson, of Norfolk, who has charge of the farm investigation work in this State. Mr. Johnson gave the results of various farm surveys in different sections of the State.

The following men have been pledged by the different fraternities at A. & M.: Sigma Nu, C. S. Tucker, of Hertford; Kappa Sigma, H. S. McLean, of Johnston; R. B. Little, of Wadesboro; Rorden Davis, of Goldsboro; F. J. Bounds, of Weldon; A. N. Goodson, of Concord; Kappa Alpha, W. R. Riddick, of West Raleigh; Ben Temple, of Danville, Va.; T. B. Misenheimer, of Charlotte; J. H. Dodson, of Greensboro; H. H. Royster, of Oxford; H. Kappa Alpha, W. O. McDowell, of Scotland Neck; W. M. Martin, of Winston-Salem; E. H. Boyce, of Charlotte; W. H. Easley, of J. D. Collier, of Goldsboro; B. D. Hodges, and R. H. Hodges, of Washington; D. W. Artz, of Old Fort; J. D. Hunt, of Pomona; F. S. Morrison, of Statesville.

The executive committee of the college met this week. Those present were W. H. Fagan, of High Point; C. W. Gold, of Greensboro; R. H. Hicks, of Rocky Mount; O. L. Clarke, of Clarksville; T. Thorne, of Rocky Mount. The committee made arrangements to provide adequate equipment for the forge shop in the new building now being erected. The new shop will be excellently lighted and aired, and apparatus for carrying off the smoke will be down draft. It will be so arranged that the shop will be entirely free from smoke. The committee also approved a plan for the celebration of the twenty-fifth year of the work of the college, this celebration to be held on the last day of the year. A good many other matters of minor importance and regular routine were considered and acted on by the committee.

The Thalarian German Club held its February dance in the Pullen Hall ballroom on Saturday night. About thirty couples and a large number were present. There were also many visitors, including a large number of students from the university and several from Trinity College.

NEWS OF V. P. I.

[Special to The Times-Dispatch.]
Blacksburg, Va., February 7.—The attendance during the first week of the winter course in agriculture has been just double that for the whole course in any previous year, forty-eight men having registered to date, representing nearly every section of Virginia. While fifty-nine students were entered for the short course in 1909, twenty-five of these were Montgomery County farmers, who came for some of the lectures as the guests of the president, but the majority of the students, the majority of nonresident students, the majority of the boys from clubs throughout the State, and all have matriculated for the full four weeks' course.

The college student body is now composed of 527 students, the class divisions to date are: post-graduates, 10; seniors, 120; juniors, 91; sophomores, 140; freshmen, 166. The two-year agricultural men, 26; second two-year agricultural men, 26; special students, 6. Professor Lyman Carrier, of the department of agronomy, and W. P. Moore, district demonstration agent, left on Wednesday for the annual Corn Show at Dallas, Texas, where they will be joined later by Professor G. C. Stanger, of the department of V. P. I. The college has an extensive exhibit at the corn show, and is also showing a plan of the new building, which has been brought to a successful conclusion at the experiment station here.

Colonel W. M. Brodie and Professor J. J. Davis, of the faculty, left on Friday for Richmond to attend the annual meeting of the grand lodge of Masons. An eighty-five yard board running track, which has been built and banked at each end, has just been completed on the quadrangle in rear of Barracks No. 1, and is now being used by candidates for the track team that will represent V. P. I. at the meet in Richmond the next week. This is the first step towards providing the athletes here with facilities for practice during the winter months and in bad weather.

President Eggleston and Dr. S. W. Fletcher, director of the experiment station, spent the week in Richmond on college business.

A contest by the Bostonians on Monday night, three basketball games on the cotton club dance last night have been among the student affairs of the week.

NORMAL NOTES

Harrisonburg, Va., February 7.—C. J. Heatwole has returned from Petersburg, where he addressed the Farmers' Co-Operative Association on Tuesday afternoon. President J. A. Burruss has returned from Richmond, where he spent a few days. The girls of the normal are busily engaged in preparing for the school annual, the officers of which were elected some time ago. On account of sickness, Miss Florence Kocell resigned her position as editor-in-chief, but her resignation was not accepted, and Miss Sallie Rome, of Newport News, one of the assistant editors, has been selected as acting editor-in-chief. Dr. Wayland is delivering a series of lectures on his impression of New England.

The Richmond College Glee Club will be at the normal Friday night, February 13.

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Surely try a "Danderine Hair Lotion" if you wish to immediately subdue the beauty of your hair. Just moisten a cloth with Danderine and draw it carefully through your hair, using one small strand at a time. It will cleanse the hair of dust, or any excessive oil—in a few minutes you will be amazed. Your hair will be wavy, fluffy and abundant and possess an incomparable softness, lustre and luxuriance.

Besides beautifying the hair, one application of Danderine dissolves every particle of dandruff; invigorates the scalp, stopping itching and falling hair.

Danderine is to the hair what fresh showers of rain and sun are to vegetation. It goes right to the roots, invigorates and strengthens them. Its exhilarating, stimulating and life-producing properties cause the hair to grow long, strong and beautiful. You can surely have pretty, soft, lustrous hair, and lots of it, if you will just get a 25-cent bottle of Knowlton's Danderine from any drug store or toilet counter, and try it as directed.—Advertisement.